

Nepomorpha and Gerromorpha (Hemiptera) community in the agricultural fields of Barak Valley, Assam, North East India

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ABSTRACT

Nepomorpha and Gerromorpha are infraorders of order Hemiptera comprising aquatic and semiaquatic bugs. Besides being predators they are particularly important in agricultural fields as bio-control agents and bioindicators. Studies on diversity of aquatic and semi aquatic Hemiptera bugs in agricultural fields are very rare in India. The study area Barak Valley though included in Indo Burma biodiversity hotspot region lacks documentation of hemipterans. Thus a study on their diversity and abundance in the large and old agricultural fields of Cachar (AF1), Karimganj (AF2) and Hailakandi (AF3) districts of Barak Valley were taken up. Collections were made seasonally by standard methods except when the systems were dry. A total of 30 species, 19 genera and 11 families were recorded with the dominance of mostly Nepomorpha bugs. In AF1 and AF2 the preponderance of semi-tolerant species of Micronectidae, Notonectidae and Pleidae implied disturbances in the field water to some extent. Whittaker plot, k-dominance plot, rarefaction curves figured out the temporal variation in the taxa richness and their assemblage in the three sites. Among all the sites, AF3 showed more stable habitat with highest species richness and lowest dominance.

Key words: Aquatic and semiaquatic Hemiptera; Engelmann's Scale; Heteroptera; k-dominance plot; Rarefaction curve; Whittaker plot